Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Section 68.4(a) of the Commission's	)	WT Docket No. 01-309
Rules Governing Hearing Aid-	)	RM-8658
Compatible Telephones	)	

REPLY COMMENTS OF
NEXTEL COMMUNICATIONS, INC.

Nextel Communications, Inc. ("Nextel") hereby submits these reply comments in response to the Notice of Proposed Rule Making in the above-captioned proceeding.[1]

I. INTRODUCTION AND SUMMARY

The following summarizes the history of this important proceeding and outlines Nextel's position on the issues.

A. THE HEARING AID COMPATIBILITY ACT

The Hearing Aid Compatibility Act of 1988 *(*the *"Hearing Aid Act")*[2] required the Federal Communications Commission (the "Commission") to establish regulations "to ensure reasonable access to telephone service by persons with impaired hearing."[3] The aim of this legislation was to enable all persons, including the hearing-impaired, to have available "the best telephone service which is technologically and economically

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[1] *Notice of Proposed Rule Making* in WT Docket No. 01-309, *Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones*, RM 8658, FCC No. 01-320, released November 14, 2001 (the "*Hearing Aid NPRM*"). Nextel did not file comments in this proceeding.

[2] 47 U.S.C. § 610.

[3] 47 U.S.C. § 610(a).

feasible."[4] The *Hearing Aid Act* applied to wireline telephones and specifically exempted other categories of telephones, including wireless phones, which were then known as "telephones used with public mobile services," because wireless compatibility was not deemed technically feasible.[5] The Commission is required to reassess the wireless exemption periodically and revoke or limit the exemption if it determines that wireless phones can be made compatible with hearing aids[6] in light of four specified criteria of feasibility.[7]

B. THE WIRELINE COMPATIBILTY STANDARD

The Commission promulgated the *Hearing Aid Act* by adopting a technical design standard for wireline phones to achieve electromagnetic compatibility with hearing aids.[8] This technical standard employs a technique called "inductive coupling." Inductive coupling makes the transducer in the phone leak an electromagnetic field that signals a telecoil in the hearing aid, which in turn relays the signal to the hearing aid amplifier.

C. DEVELOPMENTS SINCE THE ADOPTION OF THE HEARING AID ACT

Since 1988, two design trends have created incompatibilities between certain wireless phones and hearing aids. First, hearing aid manufacturers have developed a greater variety of hearing aids, some of which operate under very different technical

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[4] Pub.L. 100-394, § 2 (Aug. 16, 1988).

[5] *Id*. at § 610(b)(2)(ii); S. Rep. No. 100-391, 100th Cong., 2nd Sess. 1988 at 1351. As the Commission notes, it subsequently reclassified certain wireless radio services as Commercial Mobile Radio Services ("CMRS"). *Hearing Aid NPRM* at n. 6. Nextel asserts that all CMRS licensees should be treated with regulatory parity for purposes of this proceeding.

[6] For purposes of these reply comments, the term "hearing aids" will include cochlear implants.

[7] 47 U.S.C. § 610(b)(2)(C). The four criteria are discussed at § III infra.

parameters. For example, the *Hearing Aid NPRM* notes that today only 20% of hearing aids contain a telecoil, which is necessary for inductive coupling.[9] Meanwhile, the radio frequency ("RF") interface protocols of wireless phones have migrated from analog to digital. Unlike analog wireless phones, digital handsets transmit fluctuating RF signals, or "pulses," that can interfere with hearing aids, even those with telecoils that are suitable for inductive coupling. Interference, as opposed to coupling, was not an issue in the pre-digital days and therefore was not addressed in the *Hearing Aid Act*.[10]

D. THE HEARING AID NPRM

The purpose of this proceeding is to reexamine the statutory exemption for wireless phones and determine whether it should be revoked or limited to improve compatibility between wireless phones and hearing aids.[11] The inquiry also examines whether improved compatibility can be achieved through "internal means," as required by the statute.[12] Significantly, the Commission believes these goals should be pursued cooperatively by all interested parties, including hearing aid manufacturers, digital phone manufacturers, and wireless carriers.[13]

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[8] 47 C.F.R. § 68.316.

[9] *Hearing Aid NPRM* at para. 20.

[10] Coupling addresses magnetic field emissions; RF signals affect electric field emissions.

[11] *Hearing Aid NPRM* at para. 15.

[12] *Hearing Aid NPRM* at paras. 4 and 8. For example, the Commission would determine whether the use of a wireless accessory, such as a hands-free device, would qualify as an internal means of achieving compatibility. *Id*.

[13] *Id.* at paras. 26 and 32.

E. NEXTEL'S PROPOSAL TO INCREASE HEARING AID COMPATIBILITY

Nextel agrees with the commenters on both sides of the debate who argue that hearing-impaired persons should have better access to digital wireless networks and that improving such access will require improved compatibility between wireless phones and hearing aids. To achieve these goals the Commission need not completely revoke the wireless exemption. Hearing-impaired persons will have better access to digital wireless networks when there are improvements to the electromagnetic interference ("EMI") immunity of hearing aids.[14]

Nextel believes the U.S. should adopt a uniform product standard governing the EMI immunity of hearing aids, just as other advanced countries have already done. The Food and Drug Administration ("FDA") could spearhead the initiative with the active participation of hearing aid manufacturers. Wireless vendors could support the initiative with wireless expertise. Meanwhile, hearing aid and wireless manufacturers could cooperate to test the "pairing" of their devices, while wireless carriers could help communicate the pairing data to their customers.

II. NEXTEL FULLY SUPPORTS THE GOAL OF THE HEARING AID ACT

Nextel agrees with the Commission that wireless service has become increasingly important to American economic and social life.[15] We also agree that as digital wireless

[14] A hearing aid can be immunized from RF interference by shielding the device or by adding a capacitor to "short out" the RF emissions.

[15] *See Hearing Aid NPRM* at para. 21.

service supplants analog service, it becomes more critical for disabled persons to access digital service so they can communicate freely in the modern world.[16] The following summarizes the efforts made to date by Nextel and its primary equipment vendor, Motorola, Inc. ("Motorola"), to promote digital wireless access for the hearing-impaired.[17]

A. HEARING-IMPAIRED PERSONS ALREADY HAVE A RANGE OF OPTIONS TO ACCESS NEXTEL'S DIGITAL WIRELESS NETWORK

Nextel subscribers currently have access to various Nextel phone features and accessories that the hearing-impaired should find very useful, including speakerphones, a vibration alternative to the traditional telephone ring, hands-free devices, a fold-out portable keyboard that can be attached to a Nextel phone, two-way wireless text messaging, and wireless web services.[18] Certain neck loops also work with Nextel phones.

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[16] *See Id*. at para. 22.

[17] Nextel's understanding of the technical relationships between handsets and hearing aids is based largely on discussions with Motorola's subject matter experts.

[18] The speakerphone and hands-free devices help avoid interference between hearing aids and cell phones because the cell phone is kept a distance away from the ear, where the hearing aid is positioned.

Nextel operates a nationwide, all-digital wireless network using integrated digital enhanced network ("iDEN") technology. Only iDEN handsets can operate on this network, and iDEN handsets are manufactured solely by Motorola. Consequently, Nextel relies heavily on the parameters of iDEN technology and the expertise of Motorola to make its handsets compatible with other devices.

Motorola has been very proactive in the field of disability access. For example, three years ago it began designing currently available iDEN phones in compliance with the FCC's *wireline* coupling standard to enhance compatibility with hearing aids. One commenter thought iDEN phones worked well in a test of hearing aid compatibility.[19]

In addition, Motorola participates in the Hearing Aid Compatibility Summit (the "Summit Process") organized in 1996 to research hearing aid compatibility issues. The Summit Process involves a wide variety of subject matter experts, including audiologists, government officials, and representatives of industry and consumer groups. The main focus of their research is a standard developed by the American National Standards Institute ("ANSI"), ANSI C63.19-2001, in consultation with the FCC and FDA, to measure interference between handsets and hearing aids. If the ANSI standard can be validated based on real-world testing, vendors will be able to categorize and pair devices in combinations so customers will know which phones work best with which hearing aids.

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[19] *See* Comments of Rehabilitation Engineering Research Center ("RERC") on Telecommunications Access at p. 19.

B. BROADER ACCESS COULD BE ACHIEVED IF HEARING AIDS COULD BE IMMUNIZED FROM DIGITAL RF PULSING

Despite the steps that have already been taken to increase hearing-impaired access to digital wireless networks, Nextel recognizes that many hearing aid users may need better access. We also support the view that coupling alone will not solve RF pulsing interference. As for the ANSI Standard C63.19-2001, it is undisputed that the standard measures interference but does not reduce it. Thus, if the Commission's goal is to improve compatibility between digital wireless phones and hearing aids, and do so through internal means, the relevant parties must try to reduce RF pulsing interference and participate in the ongoing Summit Process to measure the interference reductions.

In the *Hearing Aid NPRM,* the Commission stated that there are two possible ways to minimize RF pulsing: wireless vendors must somehow reduce the RF emissions of digital wireless phones or hearing aid vendors must improve the immunity of their devices.[20] According to the Comments of the Telecommunications Industry Association ("TIA") and other commenters with technical expertise in digital wireless networks and handsets, it is not currently feasible for wireless vendors alone to remedy RF pulsing interference by shielding the wireless device because it is so difficult to control the close-in RF field without frustrating the basic functionality of the phone.[21] At a minimum, a wireless phone must emit enough RF energy to reach a wireless base station located anywhere from a few yards to a few miles away. Many commenters believe it is also unrealistic for wireless vendors to create a single technical standard to solve the RF

[20] *Hearing Aid NPRM* at paras. 8 and 27.

interference problem because the handset and hearing aid industries have produced such a wide and complex variety of technologies and configurations.[22]

The comments generally indicate that the single most effective and efficient way to minimize RF pulsing interference would be for hearing aid vendors to improve the immunity of their products.[23] As TIA and CTIA correctly note, that was the approach taken by the European Union and Australia after thorough investigation.[24] In fact, Australia's National Acoustic Laboratory expressly rejected the option of shielding the phones.[25]

III. THE HEARING AID ACT DOES NOT REQUIRE A COMPLETE REVOCATION OF THE WIRELESS EXEMPTION

The *Hearing Aid Act* provides that if four specified criteria are met, the Commission should revoke or limit the wireless exemption. In particular, the exemption must be revoked or limited if: (i) such action is "in the public interest;" (ii) continuation of the exemption "would have an adverse effect on hearing-impaired individuals;" (iii) compliance with the compatibility mandate is "technologically feasible;" and (iv) compliance with the compatibility mandate "would not increase costs to such an extent" that the subject phone "could not be successfully marketed." The following applies each

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[21] TIA at 6; CTIA at 12-13; Comments of Matsushita Electric Corporation of America ("Panasonic") at 6-7.

[22] ASES at 13; TIA at 7-12; Comments of American National Standards Institute Accredited Standards Committee 63 (EMC) Subcommittee 8 (Medical Devices) ANSI ASC C63 SC8 ("ANSI") at 15; Comments of Jo Waldren ("Waldren") at 8; CTIA at 14.

[23] Comments of the Cellular Telecommunications & Internet Association ("CTIA") at 14-15; TIA at 13-15; ANSI at 16-17; Panasonic at 8-9; RERC at 16; HIA at 4; A.G. Bell at 10.

[24] TIA at 17 – 19; CTIA at 14 – 17.

[25] Panasonic at 6 – 7.

of these criteria to the RF pulsing interference issue and demonstrates that under the *Hearing Aid Act* a complete revocation of the wireless exemption is not warranted.

A. REVOKING THE EXEMPTION WOULD NOT SERVE THE PUBLIC INTEREST

A complete revocation of the wireless exemption could effectively place the entire burden of resolving RF pulsing interference on wireless vendors and carriers, just as the initial implementation of the *Hearing Aid Act* placed the burden of hearing aid coupling on wireline vendors. In particular, complete revocation would arguably call for the Commission to go beyond the magnetic field coupling objective of the *Hearing Aid Act* and impose an electric field compatibility standard on wireless vendors.[26] However, such an allocation of responsibility would be seriously misplaced because it would thwart the public interest goals of the *Hearing Aid Act* itself.

The *Hearing Aid Act* expressly instructs the Commission to regulate hearing aid compatibility in a manner that would "consider the costs and benefits to all telephone users" and not "discourage or impair the development of improved technology."[27] Any technical standard that forced wireless vendors to minimize RF pulsing would impair the basic functionality of the digital phone for everyone who uses the phone, as explained above. Alternatively, such a technical requirement may require handset vendors to separate the earpiece from the transmitter in all digital wireless phones, something many customers probably do not want.[28] Therefore, for this public interest reason alone, the Commission should not completely revoke the wireless exemption.

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[26] *See* 47 U.S.C. § 610(c).
[27] 47 U.S.C. § 610(e).
[28] *See* Comments of Cingular Wireless L.L.C. ("Cingular") at 7.

Another provision of the *Hearing Aid Act* requires the Commission to "encourage the use of currently available technology."[29] No commenter disputes that hearing aid immunization is a currently available technology. Yet if the Commission places the entire technical burden on the wireless industry to make handsets and hearing aids compatible, it will indirectly reduce the incentive of the hearing aid industry to employ this valuable technology.

Complete revocation would also be unwise as a matter of efficient public policy. To begin with, it would place the entire compliance demand on the parties least able to meet it. Also, commencing a standard-setting process to redesign wireless phones, even if started immediately, would probably take much longer than building on existing hearing aid immunity standards already developed abroad. Equally important, redesigning wireless phones would do nothing to immunize hearing aids against various non-wireless sources of interference such as computer monitors, HDTV, security systems, and other devices emitting electromagnetic fields.[30]

B. REVOKING THE EXEMPTION WOULD HAVE AN ADVERSE AFFECT ON HEARING AID USERS

Complete revocation of the exemption, as explained above, would force wireless manufacturers to degrade the quality of digital phones for the sake of improving

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[29] 47 U.S.C. § 610(e).

[30] See RERC at 16. According to a few commentors, the Commission must impose a *Hearing Aid Act* mandate on wireless manufacturers before they will take serious interest in the matter of hearing aid compatibility. RERC at 15; HIA at 5-6; Comments of the Consumer Action Network at 2; Comments of Jonathan Taylor ("Taylor") at 2. Nextel believes the real barriers to compatibility lie not in the laws of the *Hearing Aid Act* but the laws of physics. Handset makers have devoted a tremendous amount of time, effort, and money to a variety of features that make wireless networks more accessible to the

compatibility with hearing aids. Ironically, such action would be a disservice to the hearing-impaired because one could argue that they would not want a phone marketed as "compatible" if it lacked basic wireless functionality.

C. REVOKING THE EXEMPTION WOULD NOT BE TECHNOLOGICALLY FEASIBLE

A complete revocation of the wireless exemption should not be deemed technologically feasible. When Congress first adopted the *Hearing Aid Act* in 1988 it determined that wireline compatibility was technologically feasible based on its finding that inductive coupling was a "present technology." That finding was consistent with the statute's above-described goal of encouraging the use of currently available technology. By contrast, the statute exempted other types of phones, including wireless phones, because there was no present technology to achieve compatibility.[31] Congress expressed the desire that "anticipated improvements in both telephone and hearing aid technologies [would] promise greater access in the future" but of course had no way of knowing whether such improvements would materialize.[32]

Applying the statute to the current situation, the question is whether there is any present technology for wireless phones, comparable to inductive coupling for wireline phones that would make wireless phones compatible with hearing aids. Not a single commenter could identify such a technology. If anything, the comments reveal that designing compatibility into a wireless phone is even less technically feasible today than it was in 1988 because the technologies of handsets and hearing aids have grown

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hearing impaired, all without a *Hearing Aid Act* mandate. Therefore, to claim these companies lack serious interest in the matter is simply unfair.

[31] Pub.L. 100-394, Section 2 (Aug. 16, 1988).

significantly more complex and varied since that date. Moreover, ANSI states that without some known level of immunity in a hearing aid, "it is impossible" to achieve universal compatibility.[33] Accordingly, the Commission should conclude that complete revocation of the wireless exemption is not technologically feasible.

Several commenters submit that certain digital phones, such as those produced by Samsung, cause little or no RF interference to hearing aids.[34] They assume that if Samsung can design a compatible wireless phone, it must be technically feasible for other handset vendors to do so.[35] Nextel disagrees. As TIA explained, different digital phones operate under different sets of strict technical parameters which vary depending on the given frequency band, operating frequencies, power levels, pulsing patterns, distance from the hearing aid, and electromagnetic field.[36] Therefore, the fact that one type of phone on one wireless network happens to cause little RF interference does not mean the handset vendor developed a particular technology to produce that favorable result. Indeed, one commenter gave an unfavorable review of Samsung's phones,[37] and another

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[32] *Id.*

[33] ANSI at 16. Even A.G. Bell, an advocate of revocation, recognizes that complete revocation may not be appropriate if the resulting regulations "leave the phone unusable." A.G. Bell at 13.

[34] Cochlear at 11-12; Comments of The Alexander Graham Bell Association for the Deaf and Hard of Hearing ("A.G. Bell") at 8; Comments of Self Help for Hard of Hearing People ("SHHH") at 8; Comments of Ronald Vickery ("Vickery") at 8; RERC at 18; HIA at 3-4; Comments of the National Association for the Deaf ("NAD") at 2; Comments of the Consumer Action Network ("CAN") at 2-3.

[35] *Id.*

[36] TIA at 7-9.

[37] Waldron at 7.

found that Samsung does not mention any RF pulsing solution in its user guide or web site.[38]

D. REVOKING THE EXEMPTION WOULD DEFEAT THE STATUTORY GOAL OF SUCCESSFUL MARKETABILITY

As discussed, the *Hearing Aid Act* cautions that any compatibility solution must be economically feasible so the redesigned phone could be marketed successfully. In this case, as stated in the Comments of Sprint PCS ("Sprint PCS"), complete revocation would not be economically feasible, or even quantifiable, due to the extreme difficulty of designing a phone that is compatible through internal means.[39] In any event, considering the growing complexity of wireless and hearing aid technology, the cost of marketing a compatible phone today could only exceed the compatibility cost that justified the original wireless exemption.

IV. THE HEARING AID ACT DOES NOT REQUIRE A PARTIAL REVOCATION OF THE WIRELESS EXEMPTION, PROVIDED THE PARTIES COOPERATE TO PROMOTE IMPROVED HEARING AID IMMUNITY

Even a partial revocation of the wireless exemption is not required if the responsible parties can otherwise make sufficient progress to fulfill the goal of the *Hearing Aid Act*. The Commission could help fulfill that goal by encouraging the cooperation needed to improve hearing aid immunity. The Commission already recognizes that hearing aid manufacturers, digital wireless telephone manufacturers, and digital wireless service providers should work cooperatively to develop compatibility

[38] Cochlear at 12.
[39] Sprint PCS at 8.

solutions, as noted above. Such cooperation is not only sound policy but also a requirement of the *Hearing Aid Act.*

Specifically, the *Hearing Aid Act* requires wireless vendors to achieve compatibility only with those aids that are "designed to be compatible" with wireless phones.[40] That means the wireless vendor's responsibility is conditioned on measures taken by hearing aid makers to upgrade their products. Hearing aid manufacturers in the U.S. should design their devices for compatibility by conforming to a uniform EMI immunity standard, just as their European and Australian counterparts already do. At the same time, they should cooperate with wireless phone makers to complete the Summit Process by subjecting the ANSI standard to real-world testing. The following describes in further detail how the cooperative process might work.

A. THE COMMISSION SHOULD PROMOTE A UNIFORM HEARING AID IMMUNITY STANDARD

The Commission can initiate the cooperative efforts it seeks by promoting a uniform product standard governing EMI immunity for hearing aids manufactured and sold in the U.S. Nextel agrees with those commenters who believe the Commission should formally recommend such action to the FDA, which has the subject matter expertise and authority to adopt the needed standard.[41] The FDA should be able to establish the standard without delay, given the extensive groundwork already completed by its counterparts in the European Union and Australia. Alternatively, the FDA could have a private standard-setting body develop the standard and permit hearing aid vendors

[40] 47 U.S.C. § 610(b).
[41] *See* CTIA at 15-17; Sprint at 19; Panasonic at 9-10; AWS at 5; Cingular at 8-9; RERC at 28.

to certify compliance with it in the FDA's hearing aid approval process. It is Nextel's understanding that the FDA recognizes private standards on a regular basis.

Establishing a uniform immunity standard for hearing aids is imperative for several reasons. First, hearing aid immunity is a present technology and therefore required by the *Hearing Aid Act*. Second, as shown above, immunity is widely recognized by the commenters as the single most effective way to improve compatibility. In fact, TIA believes it would solve the "vast majority" of RF interference problems,[42] and Sprint PCS cites tests confirming that immunization "has an enormous impact" on whether a hearing aid user will encounter interference.[43] Third, as mentioned above, the immunization approach has already been adopted successfully by Australia and the European Union after extensive research and testing. Fourth, immunity could be as cheap as inserting "less than 25 cents in additional parts per hearing aid,"[44] or "as little as 15 cents each" for miniature capacitors.[45] Fifth, as also noted above, immunity is needed to protect hearing aids from other sources of RF interference. Finally, the FCC's policy is to place the burden of RF interference protection on the makers of RF receive equipment, not the licensees who transmit RF signals.[46]

HIC and RERC argue that immunization alone would not completely solve the compatibility problem.[47] However, a universal solution for all hearing aids and phones is not required by the "reasonable access" mandate of the *Hearing Aid Act* and is probably

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[42] TIA at 14.
[43] Sprint PCS at 11-12.

[44] TIA at 21.
[45] Panasonic at 9.
[46] Panasonic at 7-8; Cingular at 5.

not technically possible, based on the record in this proceeding. Therefore Nextel suggests the responsible parties do the next best thing: develop a uniform immunity standard and combine this effort with a pairing process such as the one being developed through the ANSI standard. Studies cited by ANSI indicate that "over 65% of the hearing aid and mobile phone combinations" paired by the ANSI standard have already "performed at recommended levels."[48] With better immunity, this impressive performance record could only be improved.

B. HEARING AID VENDORS SHOULD ASSIST THE STANDARD-SETTING PROCESS

Hearing aid vendors should help drive the immunization process, whether the immunity standard is adopted through an FDA rule making or some private organization. These vendors presumably have the design and testing expertise to improve the immunity of their devices, as well as the economic incentive to upgrade the quality of their products. In addition, the establishment of a product standard could help expedite the FDA approval process, thus benefiting both sellers and buyers alike.

Hearing aid manufactures should also cooperate with the wireless equipment industry to continue the Summit Process as a necessary supplement to the immunity initiative. Nextel agrees with ANSI and the Comments of the Association of Access Engineering Specialists ("AAES") that the Summit Process research to date shows significant promise and that the participating experts should try to validate the ANSI

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[47] HIC at 4-5; RERC at 16.
[48] ANSI at 17.

standard through real-world testing.[49] We also agree with Sprint PCS that without the cooperation of both industries the validation process cannot succeed.[50]

One commenter warns that a pairing matrix "would be confusing to many people," especially considering that many sales people in phone stores "are not knowledgeable" about the compatibility issue.[51] Nextel appreciates this concern and believes carriers can address it through better customer education, as described below.

C. WIRELESS VENDORS SHOULD ALSO ASSIST THE STANDARD-SETTING PROCESS

Wireless handset vendors should contribute to the immunity standard-setting process by sharing their expertise in digital cellular technology and RF immunity with the hearing aid industry. As TIA rightly stated, cellular vendors could provide valuable insights into such details as their circuit board designs, modulation techniques, antenna specifications, and RF field strength measurements.[52]

Based on knowledge gained from the immunization process, the wireless vendors should also continue developing the ANSI standard in cooperation with the hearing aid industry, and if validated, apply it to rate the compatibility of handsets and hearing aids. They should then communicate the results to their respective wireless carriers. Indeed, once a uniform immunity standard is adopted and hearing aid vendors implement it, the ANSI standard or some other pairing approach could be applied more successfully to

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[49] AAES at 13.
[50] Sprint PCS at 16-18.
[51] Cochlear at 5.
[52] TIA at 21. Such proprietary information could be safely disclosed under private confidentiality agreements.

identify compatible combinations of devices. In short, the pairing process would complement the immunization process.

Within the cooperative approach outlined herein, the Commission could limit the wireless exemption as needed to make the above wireless vendor functions mandatory. Considering wireless equipment makers such as Motorola have already made such significant progress in cooperating with the hearing aid experts and developing compatibility solutions on a voluntary basis, there is no need to subject them to quarterly reporting obligations or other accountability measures, as the Commission suggests.[53]

D. WIRELESS CARRIERS SHOULD PROVIDE THE NEEDED INTERNAL TRAINING

Although wireless carriers may lack the specialized expertise needed to assist the proposed immunization initiative or pairing process, they can further the goal of hearing aid compatibility, as the Commission and various commenters suggest, by adopting training programs for their retail staffs.[54] Ultimately, the retailers are the individuals responsible for explaining what products and services are available on a given wireless network for the benefit of hearing-impaired customers.

Until now, it has been difficult for carriers to gather reliable information on hearing aid compatibility. But once the Summit Process is completed, wireless vendors can furnish their respective carriers with a wealth of useful compatibility information in the form of pairing data. Then carriers can proceed to share that information with the public through wireless retail channels. Accordingly, within the proposed framework of

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[53] *Hearing Aid NPRM* at paras. 32 and 34.

[54] *Id.* at para. 33; A.G. Bell at 14; CTIA at 24; RERC at 30-32; AWS at 5; Cingular at 10.

cooperation, wireless carriers should be prepared to establish retail-training programs on hearing aid compatibility that will enable retail staffs to communicate pairing data to the public.

V. CONCLUSION

Making hearing aids compatible with digital wireless phones is much more difficult than making hearing aids work with wireline phones. A digital wireless handset is a highly sophisticated product that operates under strict performance specifications and can be greatly affected by subtle changes in emission characteristics.

However, greater compatibility between wireless handsets and hearing aids can be achieved without the imposition of one-sided legal mandates. Specifically, the Commission should lead the way to a cooperative solution in which: (1) the FDA adopts a uniform hearing aid EMI immunity standard with input from the hearing aid manufacturers and wireless vendors; (2) those two industries cooperate to develop and

validate a standard for the pairing of compatible devices; and (3) wireless carriers adopt internal training programs to help educate consumers on their compatibility options.

This cooperative approach may not solve all compatibility issues but offers the best hope for solving most of them. If such an approach is successful, hearing aid users will find an acceptable range of choices when selecting among compatible digital handsets. As a result, the statutory goal of reasonable access will be achieved.

Respectfully submitted,

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